

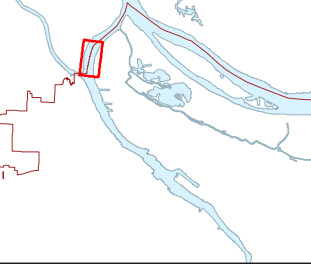
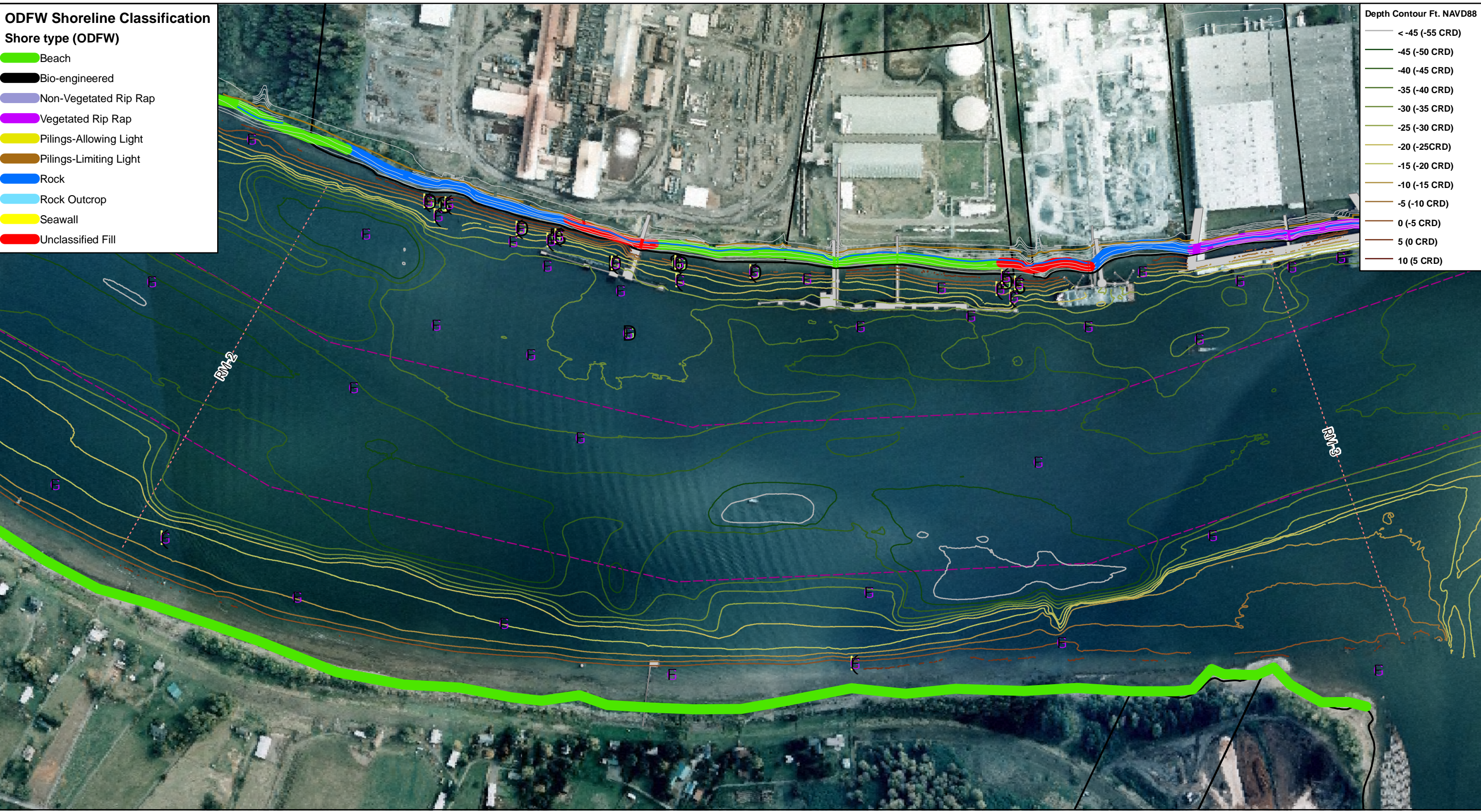
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
Coordinate System: Oregon State
Plane North, Intl. Feet
Datums: NAD83, NAVD88
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Bathymetry: Jan. 2005; CSM 03.31.05
Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

- Legend**
- Sediment Only
 - Sediment and Bioassay
 - Replicate
 - COE Navigation Channel
 - contours_2ft_pdx
 - <all other values>
 - ELEVATION**
 - 20
 - 12
 - Round 2A Subsurface Sediment**
 - Core Length**
 - 14 Ft. Max Depth
 - 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 2-3
RIPARIAN AREA ANALYSIS**

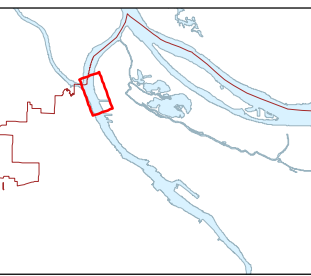
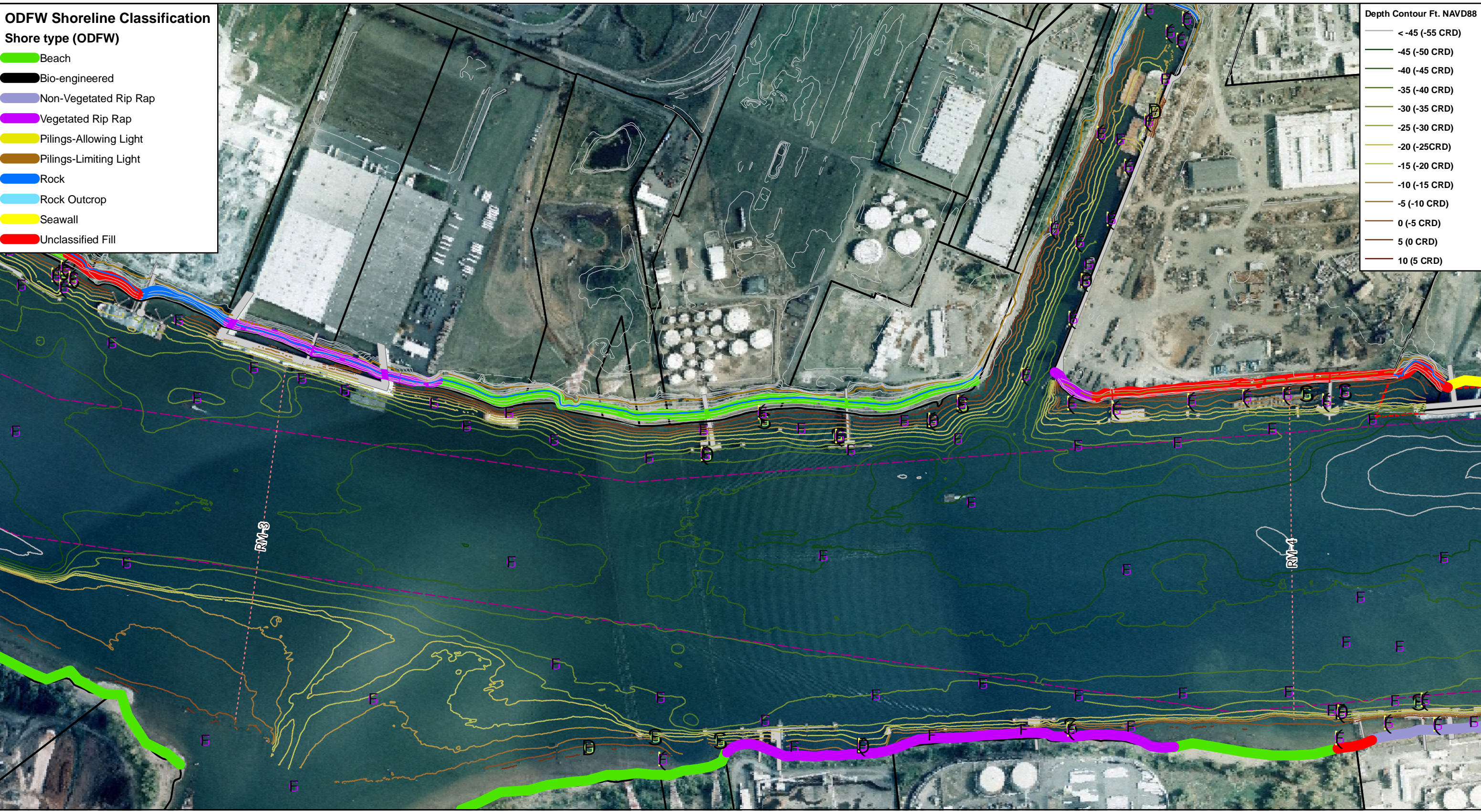
DRAFT

ODFW Shoreline Classification
Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length**
- 14 Ft. Max Depth
- 20 Ft. Max Depth

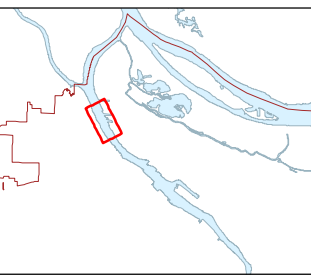
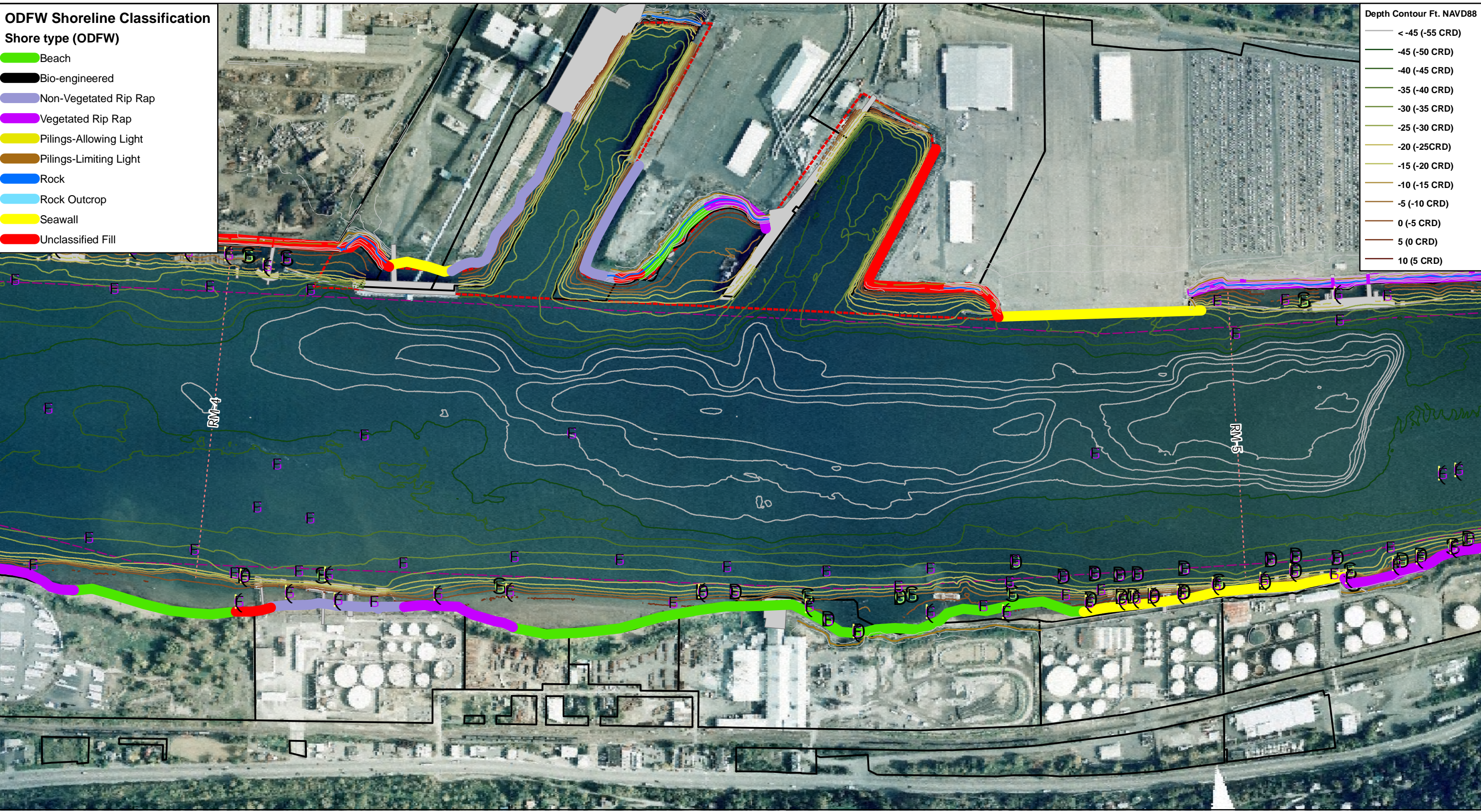
PORTLAND HARBOR: River Miles 3-4
RIPARIAN AREA ANALYSIS

DRAFT

MAPPING: NOAA/NOS/ORR
COASTAL PROTECTION
AND RESTORATION DIVISION

- ODFW Shoreline Classification**
Shore type (ODFW)
- Beach
 - Bio-engineered
 - Non-Vegetated Rip Rap
 - Vegetated Rip Rap
 - Pilings-Allowing Light
 - Pilings-Limiting Light
 - Rock
 - Rock Outcrop
 - Seawall
 - Unclassified Fill

- Depth Contour Ft. NAVD88**
- < -45 (-55 CRD)
 - 45 (-50 CRD)
 - 40 (-45 CRD)
 - 35 (-40 CRD)
 - 30 (-35 CRD)
 - 25 (-30 CRD)
 - 20 (-25CRD)
 - 15 (-20 CRD)
 - 10 (-15 CRD)
 - 5 (-10 CRD)
 - 0 (-5 CRD)
 - 5 (0 CRD)
 - 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
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Datums: NAD83, NAVD88
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

- Legend**
- Sediment Only
 - Sediment and Bioassay
 - Replicate
 - COE Navigation Channel
 - contours_2ft_pdx
 - <all other values>
 - ELEVATION**
 - 20
 - 12
 - Round 2A Subsurface Sediment**
 - Core Length**
 - 14 Ft. Max Depth
 - 20 Ft. Max Depth

PORTLAND HARBOR: River Miles 4-5
RIPARIAN AREA ANALYSIS

DRAFT



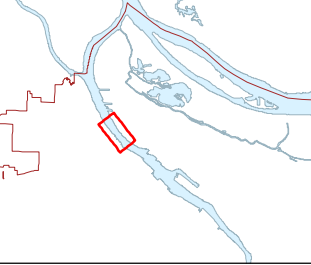
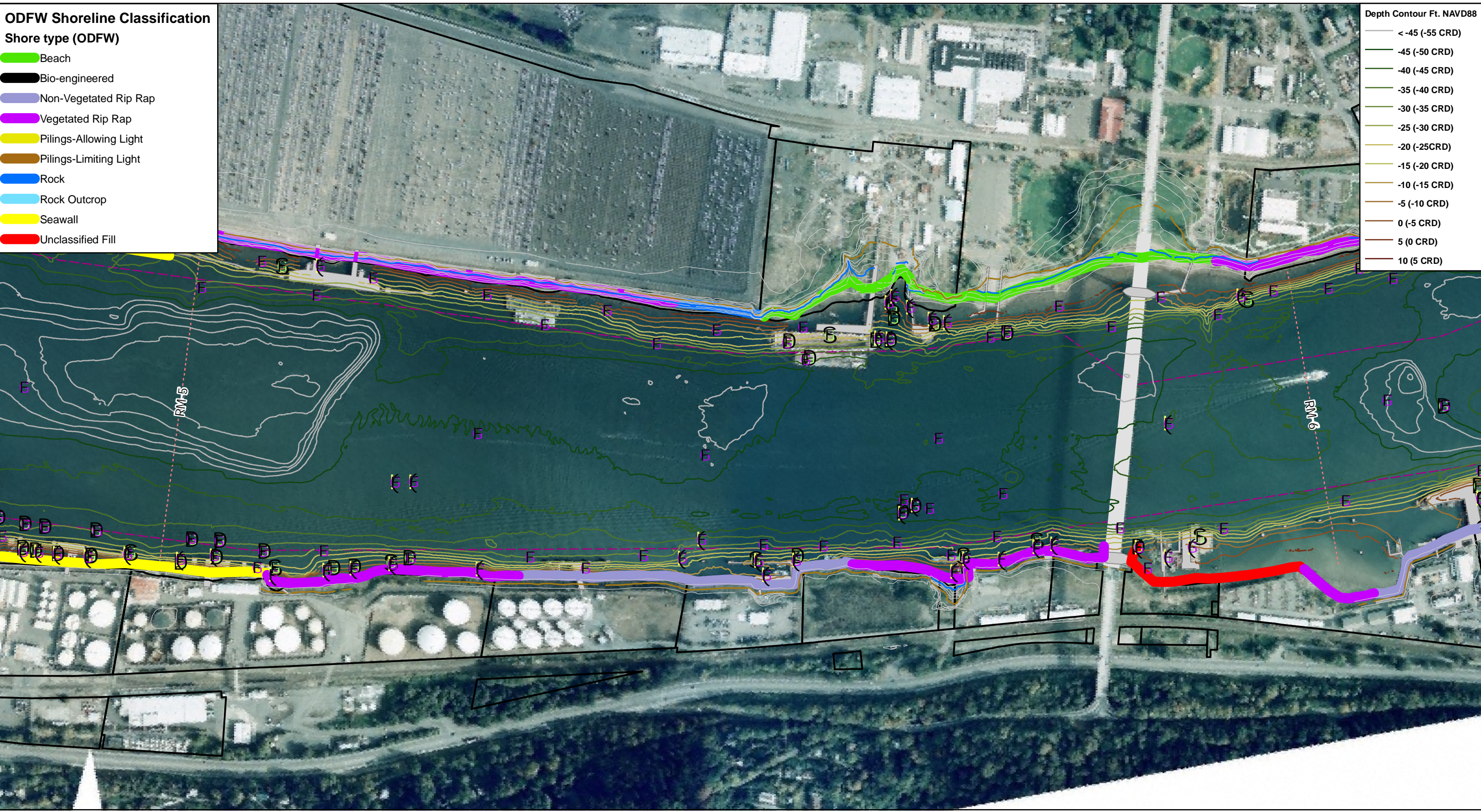
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
Coordinate System: Oregon State
Plane North, Intl. Feet
Datums: NAD83, NAVD88
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length**
- 14 Ft. Max Depth
- 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 5-6
RIPARIAN AREA ANALYSIS**

DRAFT



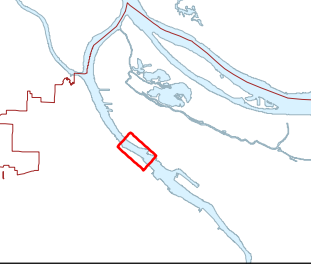
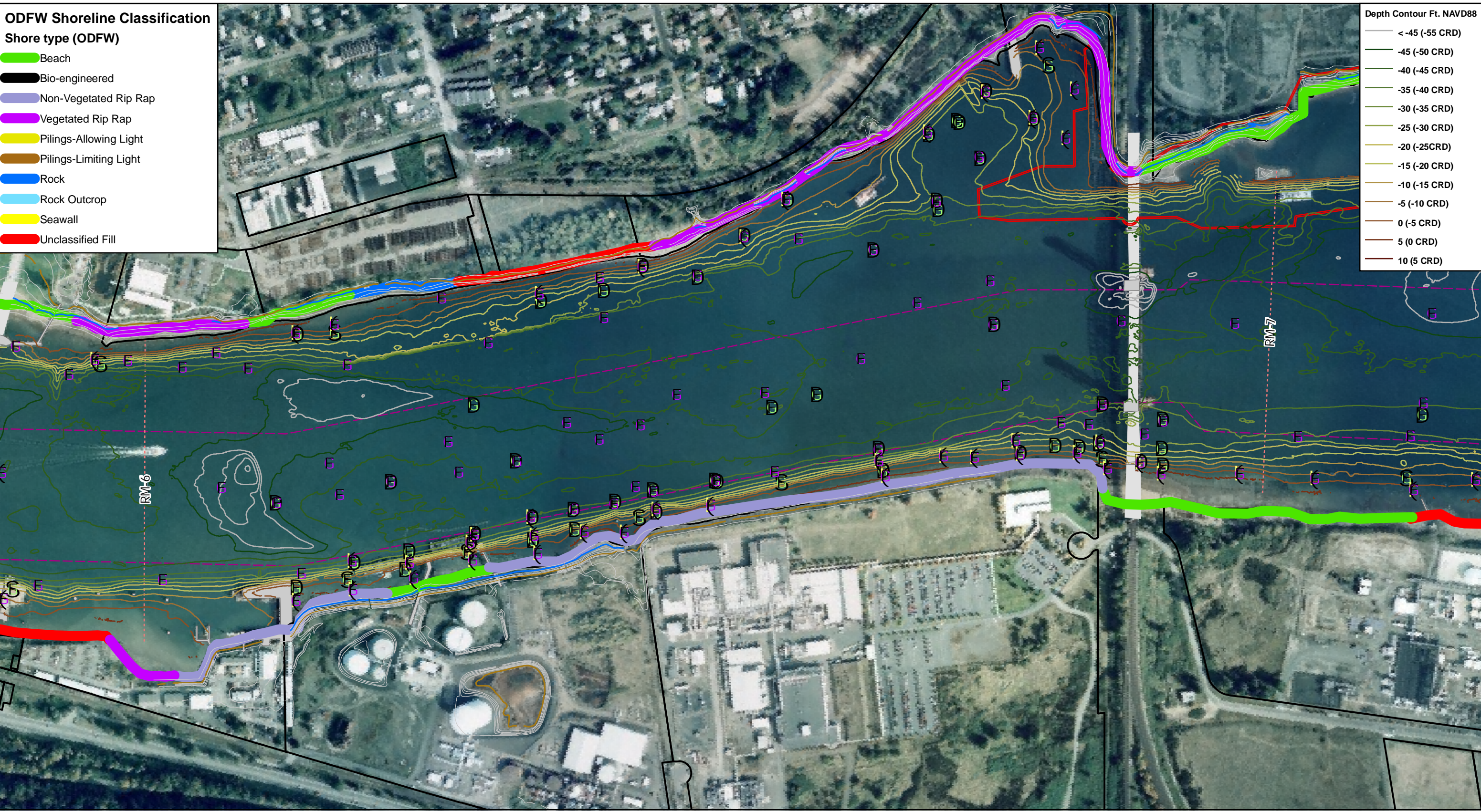
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25 CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
Coordinate System: Oregon State
Plane North, Intl. Feet
Datums: NAD83, NAVD88
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

- Legend**
- E Sediment Only
 - G Sediment and Bioassay
 - C Replicate
 - COE Navigation Channel
 - contours_2ft_pdx
 - <all other values>
 - ELEVATION**
 - 20
 - 12
 - Round 2A Subsurface Sediment**
 - Core Length**
 - 14 Ft. Max Depth
 - 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 6-7
RIPARIAN AREA ANALYSIS**

DRAFT

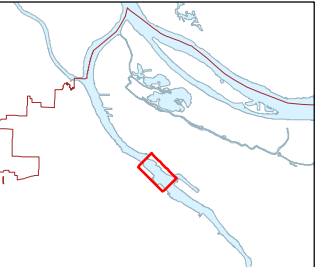
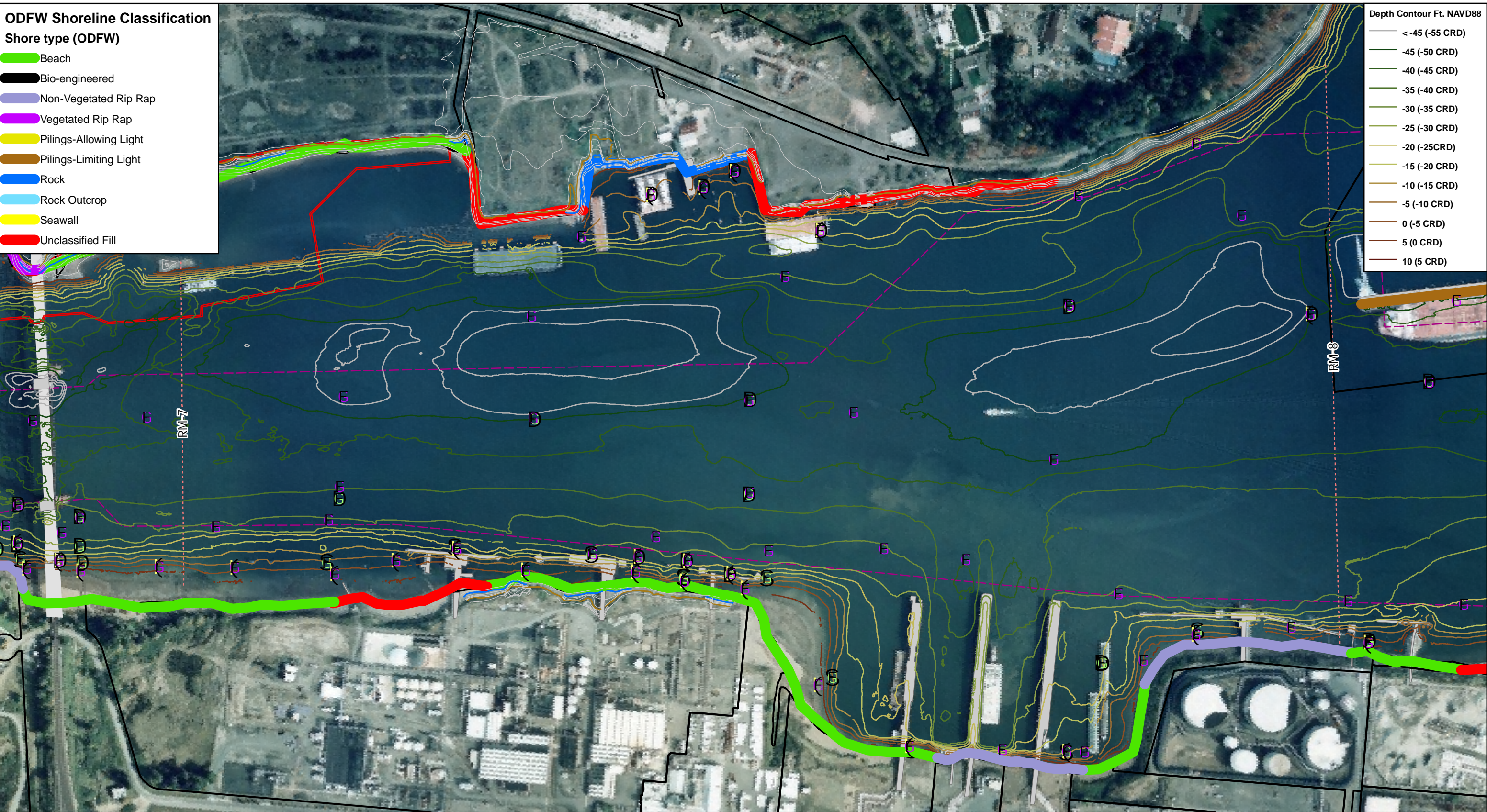


ODFW Shoreline Classification
Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
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Datums: NAD83, NAVD88
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length**
- 14 Ft. Max Depth
- 20 Ft. Max Depth

PORTLAND HARBOR: River Miles 7-8
RIPARIAN AREA ANALYSIS

DRAFT

MAPPING: NOAA/NOS/ORR
COASTAL PROTECTION
AND RESTORATION DIVISION



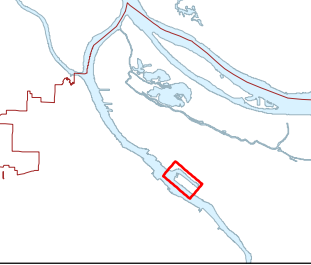
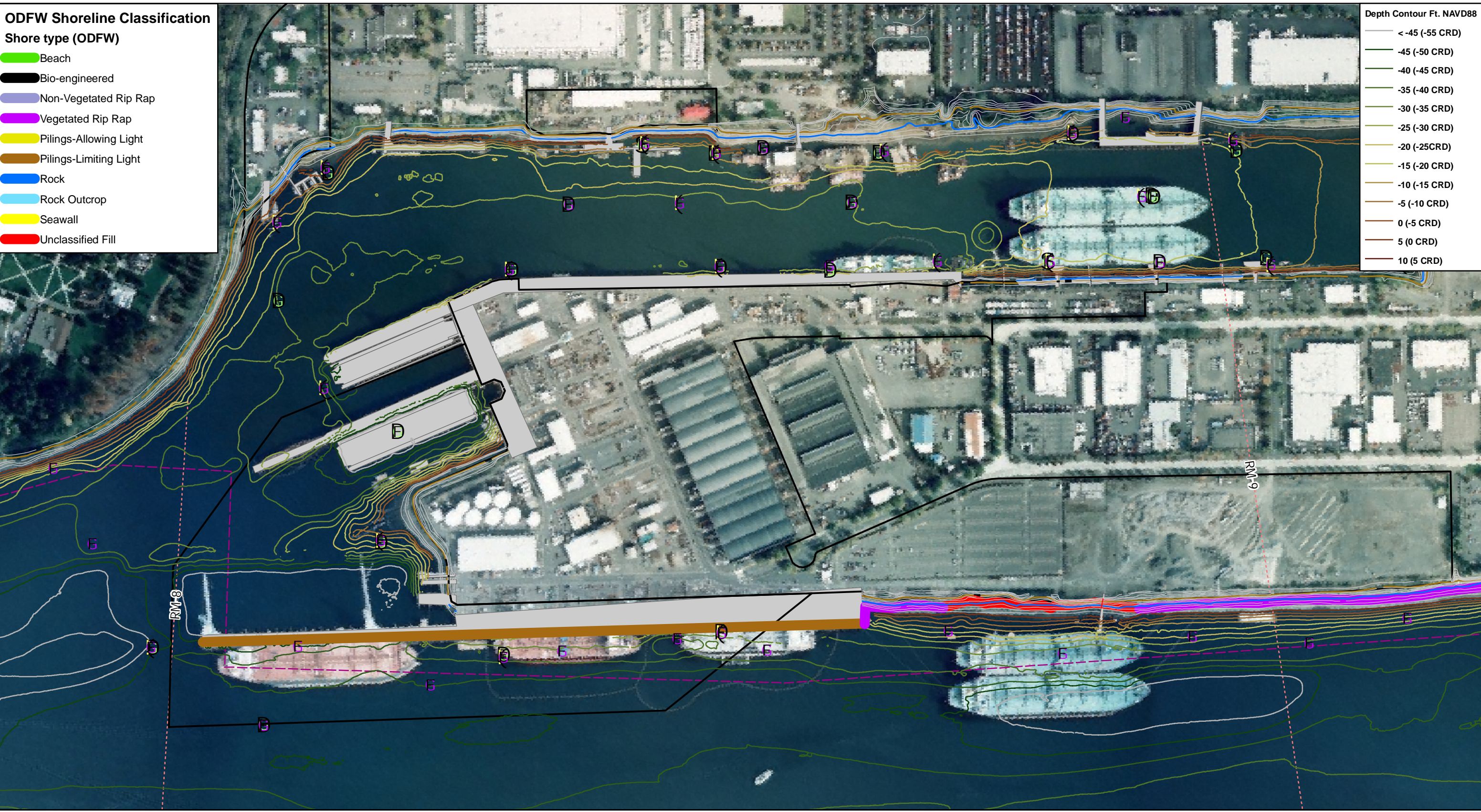
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25 CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
Data Sources:
LWG, Integral Inc., Metro RLIS,
City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
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Plot Date: 01.10.2006 BDS
File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length**
- 14 Ft. Max Depth
- 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 8-9a
RIPARIAN AREA ANALYSIS**

DRAFT



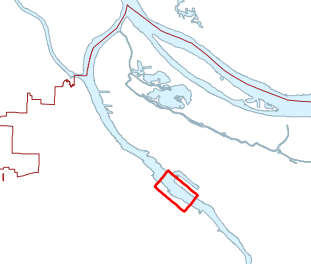
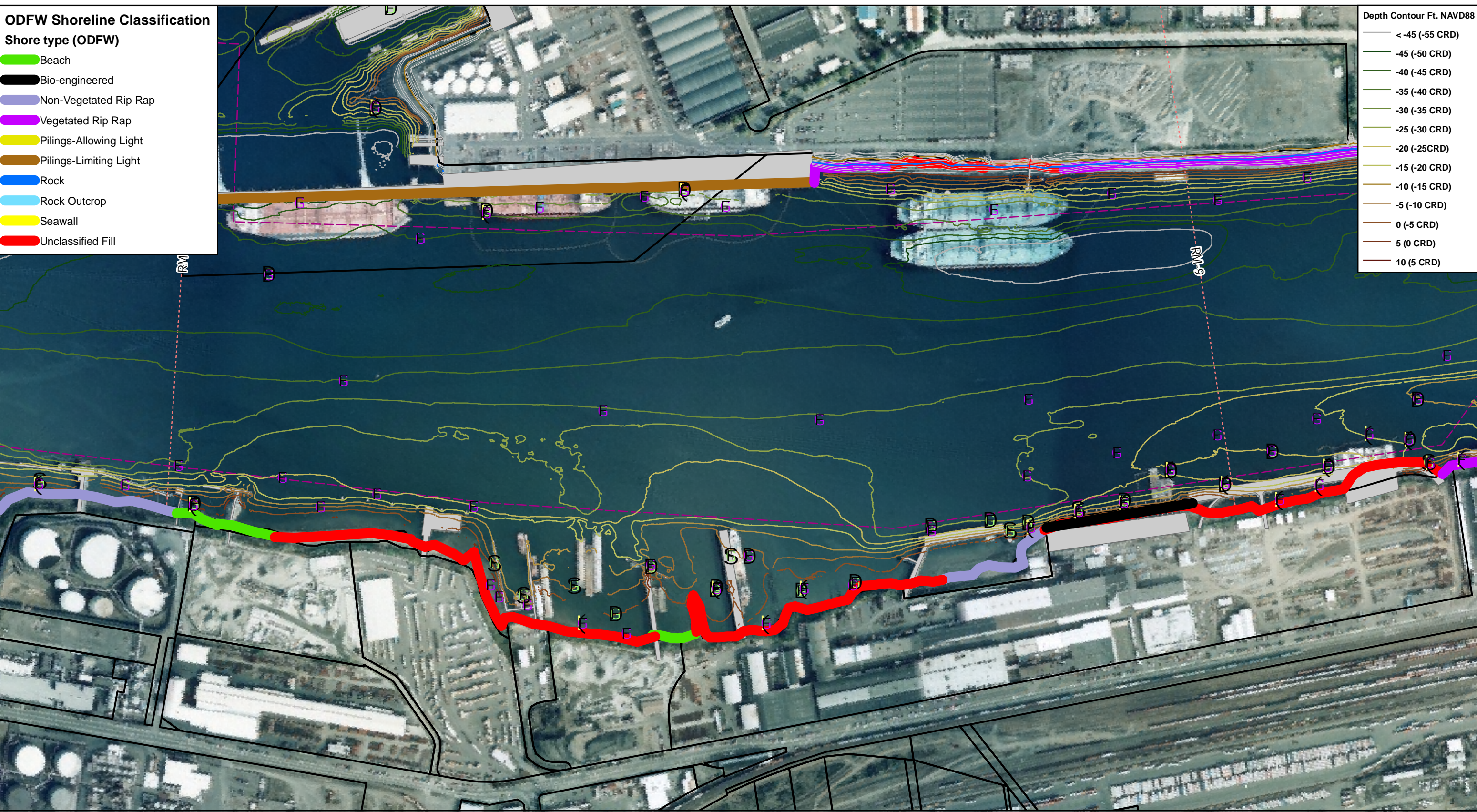
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25 CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES

Data Sources:
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City of Portland BES, NOAA
Oregon DEQ ECSI
NOAA Query Manager 05.25.05
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Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION
- 20
- 12
- Round 2A Subsurface Sediment
- Core Length
- 14 Ft. Max Depth
- 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 8-9b
RIPARIAN AREA ANALYSIS**

DRAFT

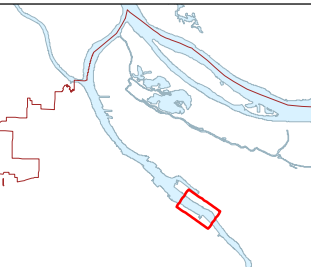


ODFW Shoreline Classification
Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25 CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
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File: c:\gis\projects\portland_harbor\arc_projects\ph_riparian2_011006.mxd

Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length**
- 14 Ft. Max Depth
- 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 9-10
RIPARIAN AREA ANALYSIS**

DRAFT



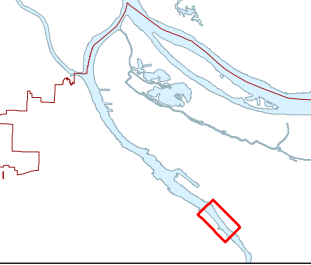
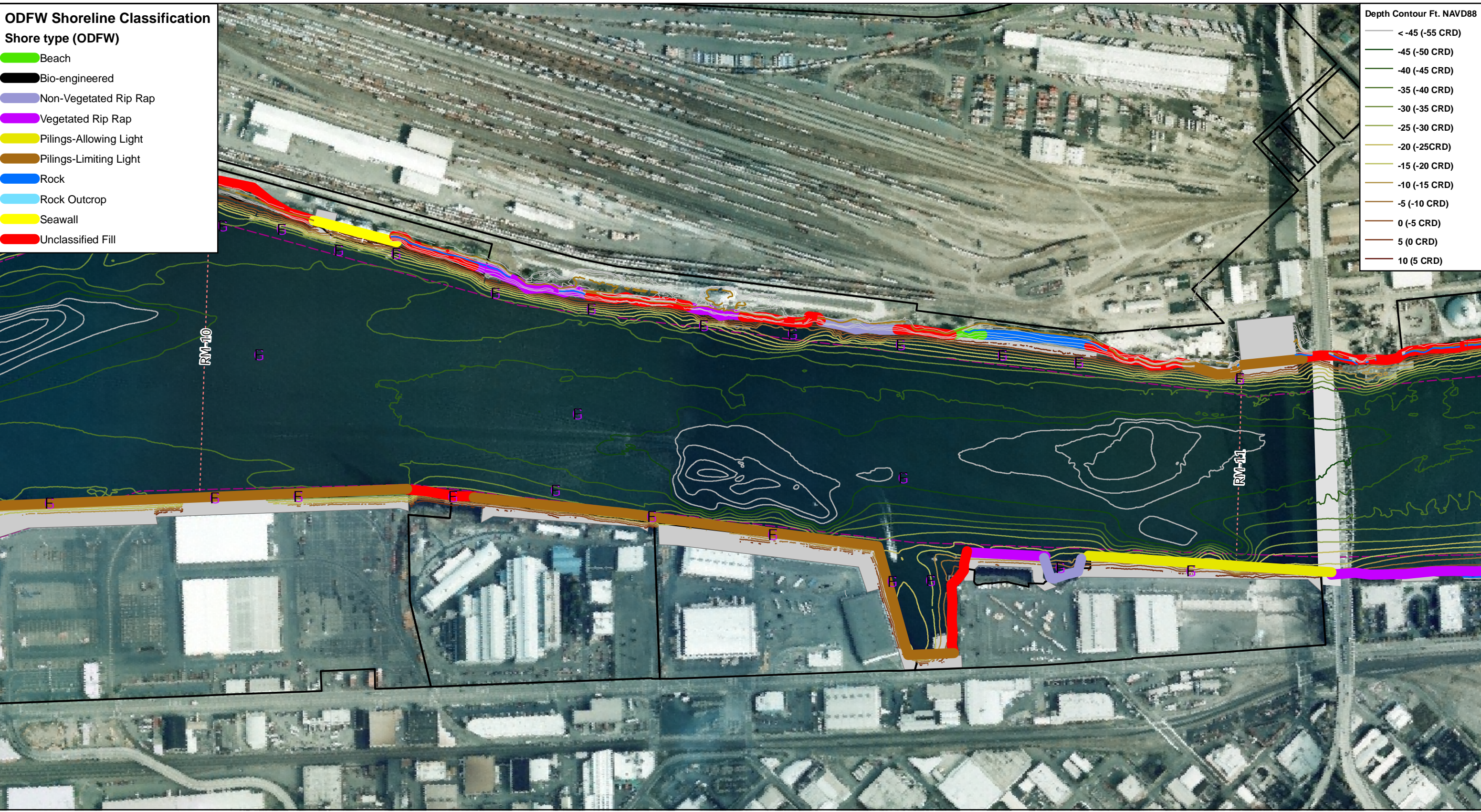
ODFW Shoreline Classification

Shore type (ODFW)

- Beach
- Bio-engineered
- Non-Vegetated Rip Rap
- Vegetated Rip Rap
- Pilings-Allowing Light
- Pilings-Limiting Light
- Rock
- Rock Outcrop
- Seawall
- Unclassified Fill

Depth Contour Ft. NAVD88

- < -45 (-55 CRD)
- 45 (-50 CRD)
- 40 (-45 CRD)
- 35 (-40 CRD)
- 30 (-35 CRD)
- 25 (-30 CRD)
- 20 (-25CRD)
- 15 (-20 CRD)
- 10 (-15 CRD)
- 5 (-10 CRD)
- 0 (-5 CRD)
- 5 (0 CRD)
- 10 (5 CRD)



NOTES
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LWG, Integral Inc., Metro RLIS,
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Oregon DEQ ECSI
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Plot Date: 01.10.2006 BDS
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Legend

- Sediment Only
- Sediment and Bioassay
- Replicate
- COE Navigation Channel
- contours_2ft_pdx
- <all other values>
- ELEVATION**
- 20
- 12
- Round 2A Subsurface Sediment**
- Core Length
- 14 Ft. Max Depth
- 20 Ft. Max Depth

**PORTLAND HARBOR: River Miles 10-11
RIPARIAN AREA ANALYSIS**

DRAFT

